

Madison, Oneida, Owyhee and Twin Falls. Luke reports it from Boise, Gem and Washington counties.

#### ANOPHELES OCCIDENTALIS DYAR AND KNAB

Fremont County: Ashton, September 8, 1945. Madison County: Rexburg and Rigby, September 7, 1945. Luke reports it from Kellogg, Shoshone County.

#### ANOPHELES PUNCTIPENNIS (SAY)

Fremont County: Ashton, September 8, 1945. It is reported by Luke from Boundary, Kootenai, Nez Perce and Shoshone counties.

#### LITERATURE CITED

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## TWO NEW SPECIES OF PTILOGLOSSA FROM ARIZONA (Hymenoptera, Apoidea)<sup>1</sup>

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The Diphaglossine bees of South America have been represented in the United States by two species of *Caupolicana*, *C. yarrowi* (Cresson) in New Mexico and Arizona, and *C. electa*

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(Cresson) in Georgia and North Carolina. It is now possible to add the genus *Ptiloglossa* to our fauna, as two species of this genus have been discovered recently in southern Arizona by Mr. W. W. Jones, of Douglas.

The genus *Ptiloglossa* Smith is similar to *Caupolicana* Spinola and has been included in that genus by some authorities. It differs, however, in having a distinct metallic luster on the abdomen, the second submarginal cell reduced in size and more or less narrowed or pointed above, and the eyes more convergent at the summits. In the male the outer spur of the hind tibia is not articulated, but is fused with the apex of the tibia. In the female the two basal joints of the hind tarsus are shorter and more broadly dilated than in *Caupolicana*.

The ocelli in both genera are more or less enlarged, befitting the crepuscular habits of these bees. Our southwestern species have been taken only for a short period before and after daybreak.

#### *Ptiloglossa arizonensis* Timberlake, new species

Resembles *P. eximia* (Smith) but differs in having the hair of tergites 2 to 4 usually entirely light and neither denser nor longer at apex of segments. It is probably even closer to *P. mexicana* (Cresson), but that species has fuscous hair intermixed on the pleura and sternum, and ochraceous hair intermixed with the fuscous on the last two tergites of the abdomen. Unless the male characters prove to be distinctive, this insect could be considered a race of *mexicana*.

*Female.* Black, with the tergum of abdomen dark blue-green (depressed margins of tergites sometimes lighter or more yellowish-green). Tip of long first flagellar joint, and following joints beneath, dark red. Tegulae and small joints of tarsi reddish ferruginous. Clypeus convex, dullish, more or less wrinkled and more or less closely punctured, the punctures rather small and more distinct on sides of disk. Posterior ocelli separated by a little more than their own diameter from the eyes. Frons and vertex dull, impunctate. Thorax dull, minutely granular-tessellate, with close, fine, shallow punctures. Enclosure of propodeum more shining, finely tessellate. Abdomen shining, very minutely tessellate and punctate. Second submarginal cell often narrowed to a rounded point above, so that the nervures meet and form a cross. Pubescence of head whitish, intermixed with long, dusky or fuscous hairs on face, margins of clypeus, occipital margin, and upper end of cheeks. Clypeus nude except around the margins. Pubescence of thorax extremely dense and plumose, fulvous above, be-

coming whitish on lower part of pleura, and more or less fulvous again on middle of sternum. Pubescence of abdomen ochreous, consisting of fine, simple, appressed hairs on disk of tergites 2 to 4; that of tergite 1 much longer, erect, and more fulvous. Hair of tergites 5 and 6 black, and a little black hair at sides of disk of tergites 2 to 4. Hair of venter reddish, mostly long and simple and arranged mostly as apical fringes, but hair on lateral margins much longer, plumose, and whitish. Hair on lateral margins of segment 1 extremely dense, plumose, and fulvous. Hair of legs ochreous, the long fringes on front femora and tibiae fulvous. Hair on outer side of middle and hind tibiae and basitarsi black, sharply contrasting with the pale ochreous, long, plumose hair on anterior margin of hind tibiae. Hair on inner side of middle and hind basitarsi coppery red. Wings pale fuliginous. Nervures brown, the costa and subcosta nearly black. Length, about 14 to 20 mm.; anterior wing, 11 to 14 mm.

In some specimens the short appressed hair on basal half, more or less, of disk of tergites 2 to 4 is dusky or blackish.

Described from a series of 77 females (*holotype* and *paratypes*) collected at PORTAL, ARIZONA, at flowers of *Solanum elaeagnifolium*, from July 20 to August 22, in 1943, 1944, and 1945 (W. W. Jones). The holotype is a female collected August 22, 1943. Unfortunately, the male was not discovered by Mr. Jones.

#### *Ptiloglossa jonesi* Timberlake, new species

Similar to *arizonensis*, differing in sculpture of clypeus and in color of pubescence on the legs.

*Female*. Differs from the female of *arizonensis* in the following particulars: Clypeus smooth, shining, sparsely and finely punctured, with a broad impunctate space on middle of disk. Pubescence on outer side of middle and hind tibiae and basitarsi dark reddish fulvous, with the long anterior fringe of the hind tibiae pale like the hair of hind femora, but not strongly contrasting as in *arizonensis*. Hair on tergites 5 and 6 fuscous, tinged with brown, not as black as in *arizonensis*. No trace of black or dusky hair on sides or base of tergites 2 to 4. Length, 16 to 19 mm.; anterior wing, about 13 mm.

Described from two females (*holotype* and *paratype*) taken at PORTAL, ARIZONA, with the preceding species, August 12, 1944, and July 22, 1945 (W. W. Jones).

The types of these two *Ptiloglossa* are in the collection of the Citrus Experiment Station, Riverside. Paratypes of *arizonensis* will be widely distributed to museums.